

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
46	to acknowledge that you are wrong.	Stubbornness plays a factor and at time influences a person judgement and decision making ability. That one look at the world as more fact driven rather than a more dynamic perspective.	To be open-minded to disposition and bring myself out of the mindset that one has all the answers.	Yes, it is critical to human development in a sense that if one can't acknowledge that a person is wrong. Thus a person wouldn't move forward, will be stuck at the problem or situation you are facing because you would accept the fact one is laying to oneself.
50	to change your mind about an issue.	Issues are defining as inner conflicts where your view point is concern and a person argues their standing point of understand the problem or situation. If an	Most important aspect of changing a person mind about an issue is argument or debates your view. Bring different viewpoints and aspect of the other person	Yes, if you looking at developing critical thinking disposition. To change your mind about a issue one needs to confront your inner conflict of why a person is saying

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		issue arises and it can be change by the other persons argument or it can't be. Then one will stand by your view.	argument and then confronting the issue that the person wouldn't accept. By presenting facts and application perspective to their argument in means to change his view on the issue.	the opposite of you. Then one process through meta-cognitive method on one's own thinking and reasoning.
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Respondent E1

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths problem completely before making a decision, • pay attention to detail in Maths problems, • not allow your prejudice to influence your decisions, • be well informed before making a decision, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<p>My lifestyle gives me this motivation to understand the reasoning and drive force of where and how people or situation gets interpret and view. An inner force that is looking for logic and reasoning. Looking for fact behind a problem or situation that one needs to conclude with before one could more forward to the next step.</p> <p>My hobby (diving and rock climbing) also bring fourth this attitude where one needs to thoroughly understand each process and step concerning planning, problem encounter, following your plan and not allow your prejudice to take a influence on your decision.</p>	<p>It bring a person's logical and reasoning perspective into play, because one needs to understand why a person follows a certain pattern of solving problems to understand where one needs to change or develop further improvement in critical thinking. If one can't find logic or sense behind your reasoning then a person can have the wrong path thought pattern.</p> <p>We are social being and each has a pre-existing prejudice that influences our reasoning and behaviour of problems we interpret and encounter. That can either influence us positive or negatively. Thus coming back to the inner-force that drives to fight against or for it. If we fight the drive we are trying to conform or confront the problem and if we go for it we</p>

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		follow our logical reasoning.
<ul style="list-style-type: none"> • be tolerant towards the ideas of others, • show understanding for the worldviews of others, • show respect towards people whose ideas differ from yours. 	Being expose to different culture in my travels around Central America, Southern Africa and it boards has made me more considerate and respect full to each person views, beliefs and thought process. Plus I come from a multi-culture family where I was considerate to be different to my peers in school and community.	This attitude makes a person more open minded and give you respect toward each individual idea or reasoning. That when a person plays part in your work environment, social interaction or any interaction with other will be open and not judgemental of other idea and views.
<ul style="list-style-type: none"> • think ahead about the consequences of your decisions, • make decisions that should add meaning to your life, • foresee long-term outcomes for decisions. 	My lifestyle of living by your decision and choice that define me. Understand that each choice has different outcome and answers. My inner drive that motivates me to add meaning to my personal life and what I can provide to the community. Plus being raise under Afrikaans cultural environment where my father had a great influence on me.	A person must be aware of their action and what consequence could follow by their decision. To be more responsible citizen of society and not conform to or instinctive needs or desires. One wants to add more meaning in your life to bring more joy and happiness. By looking ahead and see that your choice will bring you closer to your long-term goals or outcomes.
<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, 	My career that I choice to follow bring me to logical manner of seeing where job	We look at problem and situation in mathematics or any other situation that involve

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<ul style="list-style-type: none"> • approach your Maths assignments accurately, • analyse a Maths problem in the finest detail before you tackle it, • always gather information systematically, • distinguish between relevant and irrelevant information for solving a problem. 	<p>opportunities lay with education in our country. Always trying to be accurate with what is right or wrong and not being disappoint with one attempt. My daily routine plays a big influence on how my day will turn out to be. If it follows systematically with no out of the ordinary obstacle or events then I feel more motivate but if my routine is broken by too long absence or break. Motivation is at its' lowest.</p>	<p>with a problem logically and ask ourselves question what logical strategy will I follow to solve it or what can help me to understand the problem better. Then one gathers information systematically by following what a person knows. Distinguishing between the information gather and what is relevant to the problem is important. So that you don't misinterpret the facts.</p>
<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, • ask lots of questions before solving a Maths problem, • ensure that you have answered the question, after solving a problem, 	<p>Parents has influence me on how I need to reflect on decision and problems I encounter. Then being at varsity develops my way of seeing assignments and the quantity of reading materials I need to process and use so that I have sufficient information to answer the question correctly and accurately. At my work cutting foam and different shape and sizes develop my ability to ask the client</p>	<p>Reflection is important to make sure that a person is making the correct choice and following the right thought pattern in any given situation. Having sufficient information is essential in making correct decisions. Plus it very important to make sure if one has answer the question or problem present else one would never get to the end of it. Being able to follow this principle through your work, social</p>

<ul style="list-style-type: none"> analyse the result after completing an assignment, experience a feeling of competence when you could successfully solve a Maths problem. 	<p>what they want and providing the service correctly. Each client has a problem that they bring to our business and to be able to solve it and give them competent advice or service make a person feel you have achieve something. My parents have a great influence on me to develop problem solving ability around my living environment and development from childhood to adulthood.</p>	<p>setting and living circumstance will develop a better person and interpersonal communication skills needed better oneself further in life.</p>
<ul style="list-style-type: none"> constantly look for new information so that you can learn more about a topic, go out of your way to determine how to approach a difficult problem, look for opportunities in which you can solve problems, be interested in many topics, investigate new topics, ask lots of questions on a new learning section, find answers on challenging questions, 	<p>Most TV show I watch is discovery and National Geographic where new develop of mathematics and new technological topic discuss, make me question my knowledge about the topic and understand. Plus make me want to investigate through into the topic via internet or books. Plus when I find sometime I can't understand or solve, I want to find the answer and understand how one get to the answer.</p> <p>Most important I want to develop my personal</p>	<p>Yes, it important to be looking for new relevant information around your topic because it broaden your viewpoint and a person understanding of the topic. Even on problem are difficult to solve, a person need to search for a simpler method of getting to the answer and explaining it.</p> <p>If a person want to be ahead of your career then a person needs to be aware of where problems lays and able to find a solution. Will benefit yourself and work setting.</p>

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<ul style="list-style-type: none"> • study new information that have no relevance to your studies, • read a lot to broaden your understanding of topics, • write tests that require more than just memorization, • apply your knowledge to reality. 	<p>best in what I set my mind to and what I find interesting in. My career inspires me to do extra reading and have a better understanding.</p>	<p>When a person start work at new place or take a new study module that you aren't comfortable with. To better understand the new job you going to ask question too working colleges and your new study module going to ask question to the lecture to explain areas that you don't understand. Thus without asking a person would be able to move forward. Make a point to have the newest information available in your field of study so that you don't get lost with the new development and miss updates.</p> <p>Writing test need to focus more on understanding and how a person need to logically reason other than memorization facts. A person better understand the content if one make it in your own words and understand the interpretation. Then finally using your knowledge that one gain at school or tertiary to real world problems is the final step to build a</p>
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Respondent E1

		better society.
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Respondent E1

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by writing short explanations in the blocks provided.

The inventory showed that it is important for you to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving. • understand a Maths problem completely before making a decision, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • not allow your prejudice to influence your decisions, • be well informed before making a decision, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<ul style="list-style-type: none"> • To understand the problem and know how the solution was reached. • To know what is the problem and how or where to start solving it. • The reason that I have to pass the assignment. • Because maths relates to our daily life experiences. • Because I know where my decisions are based on, to be influenced by others have to understand their decisions. • To have enough information to understand why the solution was taken. • Tough problems motivate me because I will make sure that I get solution 	<ul style="list-style-type: none"> • To get to the solution. • To know what you are dealing with • To pass the assignment while understanding your work • To know how maths problems are related to our daily experiences. • It is important to understand/learn out other decision but at the end be fair and sure about your fact. • Understand a problem enables me to come to conclusion. • It helps in identifying my weak and strong point in problem solving.

<ul style="list-style-type: none"> • always gather information systematically, • plan thoroughly before tackling a Maths assignment, • distinguish between relevant and irrelevant information for solving a problem, • set goals for yourself according to which you tackle your studies. 	<ul style="list-style-type: none"> • To have different ideas and Facts. • Identifying what resources or instrument are needed • Different ideas or fact/ set motivate me to distinguish between relevant and irrelevant solutions. • My dream and my family inspires me. 	<p>To have different ideas or fact</p> <ul style="list-style-type: none"> • knowing different sides of information it is helpful and important • it is important to know what you want in life.
<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, • ask lots of questions before solving a Maths problem, • ensure that you have answered the question, after solving a problem, • reflect on (think about) your day's work, • reflect on (think about) your decisions, 	<ul style="list-style-type: none"> • Knowing your or identifying your mistakes. • That decision have great impact in my life • The reason I love reacting and researching motivates me. • To understand the problem. • Making sure that the solution is relevant. • Knowing or identifying the wrong and right things you did during the course of the day. 	<ul style="list-style-type: none"> • Because I learn from my mistakes. • Reading gives me different attitude

<ul style="list-style-type: none"> analyse the result after completing an assignment, experience a feeling of competence when you could successfully solve a Maths problem. 	<p>My favorite lecture inspires me. She always gives us lots of different opportunities of methods of solving problems. consideration.</p>	<ul style="list-style-type: none"> It is important when a lecture inspires you because it shows that she take you into consideration.
<ul style="list-style-type: none"> constantly look for new information so that you can learn more about a topic, look for opportunities in which you can solve problems, be interested in many topics, investigate new topics, ask lots of questions on a new learning section, find answers on challenging questions, read a lot to broaden your understanding of topics, write tests that require more than just memorization, work in advance and to come to the 	<p>It motivates to be updated about new information.</p> <ul style="list-style-type: none"> know different ways in solving problems. Knowing different topics helps in being informed. <p>If I'm interested a lot on that section</p> <ul style="list-style-type: none"> To see or prove that I can do tough problems. <p>Expressing my opinions motivates me a lot.</p>	<ul style="list-style-type: none"> It is important to know about new ideas It make thing easy or I dont see a problem/difficulty in solving problems. It gives deep understanding of the learning section It helps in improving my ability. It is important to express your opinions because you'll know that people will listen to you.

<p>Maths class prepared.</p> <ul style="list-style-type: none"> • apply your knowledge to reality. • acknowledge that you are wrong. • to change your mind about an issue. 	<p>My class-mates motivates me because they always participate in class.</p> <p>• Knowing nbg understanding</p> <p>My mother motivates me in acknowledging that I'm wrong.</p>	<p>To know that there are class-mates that you compete with inspires a lot.</p> <p>It is important because you realize that you are not always right.</p>
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The inventory showed that it is **important for you** to:

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<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths problem completely before making a decision, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • not allow your prejudice to influence your decisions, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<ul style="list-style-type: none"> • My lecturer, she always says that if you are given a problem you should ask yourself questions like what am I given, what can I do with it, what do I know about it, and write all the steps or the possibilities to tackle or solve the problem to come up with the solution. I also motivate myself by satisfying my curiosity especially when I was left behind in the classroom and did not get the right answers that other students got, at home I go back to the work that we have done in the class and try to 	<ul style="list-style-type: none"> • It is important because in order to solve maths one need to reason and think critically mathematically and one need to understand maths and be able to solve mathematical problems.

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	<p>find out where did I go wrong and also want to know how did the others find this answer and start all over again and solve the same problem that was done in the class until I get the right answer.</p>	
<ul style="list-style-type: none"> • listen patiently to the ideas of others, • be tolerant towards the ideas of others, • show understanding for the worldviews of others, • show respect towards people whose ideas differ from yours. 	<ul style="list-style-type: none"> • Myself, If I listen patiently to the ideas of others is easy for me to spot my mistakes, and I also acquire more knowledge from other mathematicians. 	<ul style="list-style-type: none"> • It is important to listen to other peoples' views, because I for one would want to be listened to when I express my views so in order for people to listen to me I should also listen to them, and this in turn shows respect and cooperation amongst other people.
<ul style="list-style-type: none"> • make decisions that should add meaning to your life, • foresee short-term outcomes for 		

Respondent E3

<p>decisions,</p> <ul style="list-style-type: none"> • foresee long-term outcomes for decisions. 		
<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • approach your Maths assignments accurately, • analyse a Maths problem in the finest detail before you tackle it, • always gather information systematically, • plan thoroughly before tackling a Maths assignment, • distinguish between relevant and irrelevant information for solving a problem, • set goals for yourself according to which you tackle your studies. 	<ul style="list-style-type: none"> • My lecture inspires me on this mentioned aspects because she always say that “students remember that you are the future teachers and you are going to teach your learners this things if you don’t know how to solve this problems how are you going to teach your learners”. Taking mathematics seriously means knowing your maths, and planning when approaching given tasks and also taking your maths seriously and having strategies to solve your maths. 	<ul style="list-style-type: none"> • It is important because you cannot just take undermine maths one need to do thorough planning before solving problems and also have strategies on how to solve problems seek information other sources such as teachers, peers and books.
<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • reflect on decisions that impact on your future, 	<ul style="list-style-type: none"> • I always motivate myself that after every assessment there need to be reflection on answers or there have 	<ul style="list-style-type: none"> • It is really important to reflect on your answers because that is the only way you are going to identify your mistakes

Respondent E3

<ul style="list-style-type: none"> • ensure that you have sufficient information to base your decisions on, • reflect on (think about) your day's work, • reflect on (think about) your decisions, • analyze the result after completing an assignment, • experience a feeling of competence when you could successfully solve a Maths problem. 	<p>to be feedback either positive or negative and that feedback will make me make a decision that do I really understand or not, or did I really did enough , if the feedback is positive then it means that I have achieved well and I am competent on that assignment or work but if the feedback is negative it simply means that I should go back and identify my mistakes and rectify them and put more pressure.</p>	<p>and be able to rectify them, and the reflection of answers will also help you to really analyze yourself if you really need help from other people in order for you to understand better.</p>
<ul style="list-style-type: none"> • constantly look for new information so that you can learn more about a topic, • go out of your way to determine how to approach a difficult problem, • look for opportunities in which you can solve problems, • ask lots of questions on a new learning section, 	<ul style="list-style-type: none"> • My lecturer, she always give us new information and always encourages us to go to the websites such as Geogebra to explore on maths programmes, I also take initiatives on approaching difficult problems by asking my peers and I also try to solve difficult problems if though if I 	<p>It is important to look for new information because this broadens your understanding, and also by solving difficult problems this enables you not to encounter serious problems when assessed during exams because you are used to this problems and you have developed different strategies to solve</p>

<ul style="list-style-type: none"> • find answers on challenging questions, • read a lot to broaden your understanding of topics, • work in advance and to come to the Maths class prepared, • apply your knowledge to reality. 	<p>don't find the right answers I try for even if I go to someone to seek help I should be able to show that person where I have encountered the problem.</p>	<p>difficult problems.</p>
<ul style="list-style-type: none"> • acknowledge that you are wrong, • to change your mind about an issue. 	<ul style="list-style-type: none"> • I always motivate myself that I cannot always be right and if I am wrong there need to be motivation why am I wrong in order to understand my wrong doing. 	<ul style="list-style-type: none"> • It is important to acknowledge if you are wrong because we are not born perfect and we all make mistakes and a mistake is a step to a right answer and it also a way for one to understand much better.

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • Understand a Maths problem completely before making a decision, • Understand a Maths assignment completely before starting with it, • Pay attention to detail in Maths problems, • Not allow your prejudice to influence your decisions, • Be well informed before making a decision, • Know exactly why a certain mathematics step was followed, • Do everything in your power to find the 	<ul style="list-style-type: none"> • Mrs. Kloppers motivate me in identifying problem solving steps of problem solving and a strategy she uses in class motivates me. • Mrs. kloppers she relate real life examples with what is taught in class • Mrs. Kloppers helps give us examples relating to what is asked in the assignment before giving us the assignment • Mrs. kloppers relate maths problems in real life problems • Mrs. Kloppers Gives valid reasons 	<p>So that I can be bale to understand maths and be able to have a good attitude while doing mathematics even though things get hard, I can be bale to stick to my point</p>

<p>correct answer for a Maths problem.</p>	<p>with examples to show why certain steps are followed</p> <ul style="list-style-type: none"> • Mrs. Kloppers gives assignments, small tests, and homework so that students can do everything in their to achieve what is asked 	
<ul style="list-style-type: none"> • listen patiently to the ideas of others, • be tolerant towards the ideas of others, • Show respect towards people whose ideas differ from yours. 	<ul style="list-style-type: none"> • Mrs. Kloppers encourages groups works in class, and ask different students questions and use their answers in class • Mrs. Kloppers encourages that Everyone has his/herself way of thinking and construct knowledge in their own manner and way • Mrs.kloppers encourages us that there is no wrong answer in 	<p>Be able to work with other members as a team and develop good values amongst other people, develop a good attitude to other people even though when I see that they are struggling, I can correct them in a good manner without discouraging their views in front of others</p>

	<p>maths but it can taken and considered how you reached that answer</p>	
<ul style="list-style-type: none"> • Think ahead about the consequences of your decisions, • make decisions that should add meaning to your life, • foresee short-term outcomes for decisions, • Foresee long-term outcomes for decisions. 	<ul style="list-style-type: none"> • Before making decisions you should think critically and creatively about your decisions • Friends think that one should make decisions that are relevant and add meaning to my life • Parents always encourages me that whatever you do has its own consequences or effects • Parents always encourages me that before making any decisions I should first think of what will be the outcome 	<p>So that I can be bale to know when I make decisions in life that they only contribute to my life and future, the learner cannot make decisions without thinking of the consequences will be there.</p>

<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • approach your Maths assignments accurately, • analyse a Maths problem in the finest detail before you tackle it, • always gather information systematically, • plan thoroughly before tackling a Maths assignment, • distinguish between relevant and irrelevant information for solving a problem, • Set goals for yourself according to which you tackle your studies. 	<ul style="list-style-type: none"> • Was attending the extra class of kloppers she taught us steps on approaching assignments • Mrs. Kloppers taught me that I should take time before doing an assignment • Kabelo once taught me that I should first focus on the problem statement before tackling it. • Before solving a problem you should encounter different strategies in finding the solution • Mrs. Kloppers encouraged group work and group discussions • Mrs. Kloppers before giving us a problem she would sometime different strategies in solving the 	<p>Be bale to see when information is irrelevant about the content, so that you can be able to take time before tackling a maths problem and be able to out and find different solutions in finding a problem statement from different people</p>
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	<p>problem ,Morwesi showed me how to discover when information is relevant or irreverent</p> <ul style="list-style-type: none"> • My sister said I should set my own goals and I am the only one who can decide for what kind of a life I want 	
<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, • ask lots of questions before solving a Maths problem, • ensure that you have answered the 	<ul style="list-style-type: none"> • Mrs. Kloppers said one can discover maths problems if they know different strategies in solving the problems • Maria taught me that I should make decisions that impact my future, she said that I am in control in whatever happens in my future • Mrs. Kloppers used to give us many information about maths that could help us in solving maths problems 	<p>To understand maths and see the content as being interesting and meeting individuals needs, student can be able to get excited while solving a problem statement.</p>

<p>question, after solving a problem,</p> <ul style="list-style-type: none"> • reflect on (think about) your day's work, • reflect on (think about) your decisions, • Experience a feeling of competence when you could successfully solve a Maths problem. 	<ul style="list-style-type: none"> • By understanding the problem and being related to it • Being able to demonstrate and understand what was asked • By giving me homework's or small test • Understanding the problem • Being able to solve a problem by not looking back to the answers or memorandum 	
<ul style="list-style-type: none"> • constantly look for new information so that you can learn more about a topic, • go out of your way to determine how to approach a difficult problem, • look for opportunities in which you can solve problems, • investigate new topics, • ask lots of questions on a new learning section, 	<ul style="list-style-type: none"> • Being given a lot of work about the problem • Solving a problem based question in class, and working with other members • Working with others in solving a problem • Having a good feeling or seeing the topic being interesting 	<p>To understand the durability of the content</p>

<ul style="list-style-type: none"> • read a lot to broaden your understanding of topics, • work in advance and to come to the Maths class prepared, • apply your knowledge to reality. 	<ul style="list-style-type: none"> • Not relating to the content but seeing it being interesting and exciting • Not relating to the content • When the content I understand and finding it interesting, approachable and is more problem based to me • When I have learnt about something interesting 	
<ul style="list-style-type: none"> • acknowledge that you are wrong, • to change your mind about an issue. 	<ul style="list-style-type: none"> • When I don't see how I got the answer • When many people disagree with what I say or suggest 	<p>Being able to accept when a lecture suggest you are wrong and can be able to find new solutions in problem solving</p>

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The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
14	to make decisions that should add meaning to your life.	No one really. I guess its just an out look on life, I don't plan ahead, I live for the "now"	In my case nothing really. It was said the world would end 27 May 2011, I'd rather enjoy each day than try and plan for enjoyment later. I love being random and spontaneous 'cause then I am at my best :)	NO. It is a mind set not so much an attribute that can determine life. Why do you want to do everything for meaning to your life, why not just enjoy the moment??
15	to foresee short-term outcomes for decisions.	Once again why does life have to be like the South African education curriculum? Live a little bit. Everything cannot be	Once again nothing? Its my opinion and my mind set, if it doesn't influence my end goal in life why do you want to change it?	It can be important but I think it is how you interpret it? I might be looking at it the wrong way, but the way I see it, it involves way to

		<p>planned, don't get me wrong, I have a plan for my future, but not every or even most decisions are based on this plan. I know what I need to do to get there, but for at the same time I want to enjoy all the amazing gifts God has made for me to enjoy. Life is not a set plan, why live it that way?</p>		<p>much planning.</p>
16	to foresee long-term outcomes for decisions.	Refer to previous answer. (one right above)		

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • know exactly why a certain mathematics step was followed. 	<p>I guess this isn't a who but a what. How can I be expected to complete a problem/assignment/test if all I know is "do it this way, it is the right way." What does that teach me? Nothing. I want to know why, so that I can understand how. If out this I suck at Maths.</p>	<p>Because I don't like being told what to do, unless you have a good reason. Tell me why it is done a certain way, and if I understand it then I'll do it.</p>
<ul style="list-style-type: none"> • listen patiently to the ideas of others, • be tolerant towards the ideas of others, • show understanding for the worldviews of others, • show respect towards people whose ideas differ from yours. 	<p>Two words: MY DAD!</p>	<p>This is a key aspect to learning and further growing in knowledge. I trust my dad, and so he hasn't ben wrong on this one :)</p>

<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • approach your Maths assignments accurately, • analyse a Maths problem in the finest detail before you tackle it, • distinguish between relevant and irrelevant information for solving a problem. 	<p>This one would have to be thanks to my high school mathematics teacher, Mrs Steynberg and her son, Craig Steynberg.</p>	<p>All problems, not only mathematics, can be solved, even fights, if you do it in this manner. Life choices are made easier, arguments are resolved, and math well that's easy if you apply this. And that is why it is important.</p>
<ul style="list-style-type: none"> • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, • ensure that you have answered the question, after solving a problem, • reflect on (think about) your decisions, • analyse the result after completing an assignment, • experience a feeling of competence when 	<p>These questions are difficult to answer O_o Like this one, I don't know from who or where I got it, but it is just the way I do things. Sorry I can't be more helpful into the insight of how my brain works.</p>	<p>Well it is important because how can you make any choice without a few key elements? There is a difference between living life and taking risks. I live life, but risks I tread carefully if you know what I mean. You really have to be careful. I feel good when I successfully solve a maths problem because everyone looks down at me as if it is something I am not capable of, when in fact I am.</p>

<p>you could successfully solve a Maths problem.</p>		
<ul style="list-style-type: none"> • constantly look for new information so that you can learn more about a topic, • go out of your way to determine how to approach a difficult problem, • look for opportunities in which you can solve problems, • be interested in many topics, • investigate new topics, • ask lots of questions on a new learning section, • find answers on challenging questions, • read a lot to broaden your understanding of topics, • write tests that require more than just memorization, • apply your knowledge to reality. 	<p>I blame Craig Steynberg, he taught me to love knowledge.</p>	<p>I know a lot of facts. I can give you a new interesting fact each day. For an entire year may I add. I know these facts because it helps me to be social, and in a way gives me social dominance... no not in a creepy way, but in a good way. Like my friends look up to me for advice and motivation, and so they succeed in varsity cause they have a need to never give up. That is thanks to me. I motivate through my knowledge. The only to keep my knowledge is to constantly challenge myself I guess.</p>
<ul style="list-style-type: none"> • acknowledge that you are wrong. 	<p>Oooooooh now this is very difficult for me,</p>	<p>It is important because it is through mistakes,</p>

	but I am able to do so thanks to my parents.	especially ones own, that you learn the most and the best. In order to learn from a mistake you first have to admit that there is a mistake. And so the ever growing knowledge of oneself and the world will grow.
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Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
46	to acknowledge that you are wrong.	My thoughts sometimes and I normally base my decisions on my thoughts and ones I've thought of something to be correct nothing will convince me.	If someone could base his or her explanations to convince based on what I'm thinking not based on what he or she wants.	Yes it is: sometimes you make right decisions at the wrong time and you realize later that you have made the correct decision, so being like this helps a lot.
50	to change your mind about an issue.	The person who introduced the issue to me.	If the issue could be discussed based on my benefit.	Yes it is because I do benefit and most of the times things go my way.

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths problem completely before making a decision, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • not allow your prejudice to influence your decisions, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<p>My mentors are the people behind all of this.</p>	<p>It is important to possess such because in learning and doing mathematics this are the most important things needed</p>
<ul style="list-style-type: none"> • listen patiently to the ideas of others, • be tolerant towards the ideas of others, • show understanding for the worldviews of 	<p>Was also motivated to have this attitudes by my mentors and people who knew that I have the love for mathematics</p>	<p>As I've said in learning and dealing with mathematics you have to somewhere or somehow possess such attitudes</p>

Respondent E7

<p>others,</p> <ul style="list-style-type: none"> • show respect towards people whose ideas differ from yours. 		
<ul style="list-style-type: none"> • make decisions that should add meaning to your life, • foresee short-term outcomes for decisions, • foresee long-term outcomes for decisions. 	<p>Most of all would say my mother is the relevant person who made this to be inside me.</p>	<p>It's important to have such attitudes because as an individual you should know that what you do in life should have a great impact towards your life.</p>
<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • approach your Maths assignments accurately, • analyse a Maths problem in the finest detail before you tackle it, • always gather information systematically, • plan thoroughly before tackling a Maths assignment, • distinguish between relevant and irrelevant information for solving a 	<p>Would say my mathematics teacher from my primary school.</p>	<p>It's important to know that not having such in life one will foresee him or her doing the correct thing the wrong way.</p>

<p>problem,</p> <ul style="list-style-type: none"> • set goals for yourself according to which you tackle your studies. 		
<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • ask lots of questions before solving a Maths problem, • ensure that you have answered the question, after solving a problem, • reflect on (think about) your day's work, • reflect on (think about) your decisions, • analyse the result after completing an assignment, • experience a feeling of competence when you could successfully solve a Maths problem. 	<p>My mathematics teacher from high school level.</p>	<p>These attitudes help most in acquiring motivation especially intrinsic motivation.</p>
<ul style="list-style-type: none"> • go out of your way to determine how to approach a difficult problem, • look for opportunities in which you can solve problems, 	<p>This attitude developed within me as an individual.</p>	<p>Importance of having such is to show that as an individual you can go an extra mile and do best in whatever you want to excel with</p>

Respondent E7

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| <ul style="list-style-type: none">• ask lots of questions on a new learning section,• find answers on challenging questions,• write tests that require more than just memorization,• work in advance and to come to the Maths class prepared,• apply your knowledge to reality. | | |
|---|--|--|

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
1	to identify the reasons for your steps in problem-solving.	Myself.	I care too much about whether the answer is right or wrong. Maybe I should start caring more about how to get to the answer.	Yes because it's not always the answer that counts.
2	to understand a Maths problem completely before making a decision.	Myself.	I can take more time to understand the problem before I rush to try to solve it.	Yes because if you rush things, you're more likely to make mistakes.
3	to understand a Maths assignment completely before starting with it.	Myself.	I must slow down and not be in such a hurry.	Yes because if you rush things, you're more likely to make mistakes.
4	to pay attention to detail in Maths problems.	Myself and my classmates.	I can make sure that I sit next to people who are focused in class so that I don't get easily distracted.	Yes, because distractions are everywhere in life and I need to learn how to deal with them.

Respondent E8

5	to not allow your prejudice to influence your decisions.	Myself and my peers (because sometimes my peers have some prejudices and it forces me to act in a bias way towards them).	I can try to eliminate my emotions from situations and I can make decisions based on facts and not on my feelings.	Yes, because you should be able to make clear and fair judgments.
6	to be well informed before making a decision.	Myself.	I can try to consider all the facts (or as many facts as I can) before making up my mind about something.	No, sometimes you don't need all the information in order to make a decision about something.
7	to know exactly why a certain mathematics step was followed.	Myself and my classmates.	I can try to be more attentive in class and try to put more interest in the work that is being done.	Yes, because you need to what you're doing before you can do it.
8	to do everything in your power to find the correct answer for a Maths problem.	Myself.	I can try to be more attentive in class and try to put more interest in the work that is being done.	No, because it's not always the answer that matters, it's how you got there.
9	to listen patiently to the ideas of others.	Myself and my peers.	To have more respect for other people and their ideas and to realize that I can learn from others.	Yes, because we can always learn from others.
10	to be tolerant towards the ideas of others.	Myself and my peers.	To have more respect for other people and their ideas and to realize that I can learn from others.	Yes, because we can always learn from others.

11	to show understanding for the worldviews of others.	Myself and my peers.	I must realize that I can learn from others and I must try to understand that not everybody thinks like me.	Yes, because no matter where you are in life you will always meet people who have conflicting ideas to yours.
19	to analyse a Maths problem in the finest detail before tackling it.	Myself.	I can try to be more attentive in class and try to put more interest in the work that is being done.	No, because not every problem needs to be tackled in detail before it's addressed.
20	to always gather information systematically.	Myself.	I can try to do things in order so that my information is more organized and it makes more sense.	No, because not everything needs to be done systematically.
21	to plan thoroughly before tackling a Maths assignment.	Myself and the time allocation.	I can make better use of my time and plan my time more accurately.	Yes, because time management is important in every area
22	to distinguish between relevant and irrelevant information for solving a problem.	Myself and the time allocation.	I can take time to see what's really important to solve my problem.	Yes, because taking time to sort out the important information in the beginning can you save you time in the end.
24	to reflect on the answers of your Maths problems.	Myself.	I can take some time out when I'm finished just to make sure I haven't made any mistakes.	Sometimes it's important because sometimes you have to think about what you've done etc.

Respondent E8

26	to ensure that you have sufficient information to base your decisions on.	Myself.	I can put a bit of extra time and effort to find the information that I need before I make a decision.	Yes, because in most cases it is important to have enough information before you can make a decision.
27	to ask lots of questions before solving a Maths problem.	Myself and the environment around me because sometimes I'm embarrassed to ask a question incase other people think it's stupid question.	I can try to build up my own self confidence so that I'm not embarrassed to ask questions in front of others.	No, because it's not always important to ask a lot of questions before you can solve a problem.
29	to reflect on (think about) your day's work.	Myself.	I can try to take my work more seriously.	Yes, because when you reflect you can see places for improvement etc.
30	to reflect on (think about) your decisions.	Myself.	I can try to take my work more seriously.	Yes, because when you reflect you can see places for improvement etc.
31	to analyse the result after completing an assignment.	Myself.	I can try to take my work more seriously.	No, because not everything needs to be analysed.
32	to experience a feeling of competence when you could successfully solve a Maths problem.	Myself.	I can try to take more pride in my work and try to build my confidence so that I'm proud of my work and	Yes, because you only feel competent when you've done good work.

			happy with it.	
33	to constantly look for new information so that you can learn more about a topic.	Myself and lack of extra time.	I need to take more interest in the particular topic.	Yes, because there's always something new to learn.
34	to go out of your way to determine how to approach a difficult problem.	Myself.	I need to take more interest in the work so that I'm not satisfied until I've done it correctly.	No, because sometimes it's not necessary to go out of your way to approach a difficult problem. The answers can be found easily.
35	to look for opportunities in which you can solve problems.	Myself.	I can be more perceptive so that I can recognize opportunities when they come.	No, because there aren't always opportunities available to solve problems.
36	to be interested in many topics.	Myself.	I can surround myself with people who think differently to me and who have different likes and ideas.	No, because nothing/no-one can force you to be interested in a range of things,
37	to investigate new topics.	Myself and lack of time.	I can take the time to broaden my horizons and investigate what's out there.	Yes, because you never lose anything by learning new things.
38	to ask lots of questions on a new learning section.	Myself and the environment that I'm in.	I can try having a little bit more confidence so that I'm not	No, because sometimes it's not necessary to ask a lot of questions.

			embarrassed to ask questions.	
39	to find answers on challenging questions.	Myself and my peers (because I know that there will always be someone who finds the answer).	I can apply myself more and work harder so that I can find the answers.	Yes, because there will always be difficult challenges and sometimes we'll have to find the answers to them.
40	to study new information that have no relevance to your studies.	Myself.	I can open up myself more to the possibility of learning new things.	No, because I don't think it's necessary to read about things that will not contribute to your life and that will have no effect on your life.
41	to read a lot to broaden your understanding of topics	Myself.	I can open up myself more to the possibility of learning new things.	No, because I don't think it's necessary to read about things that will not contribute to your life and that will have no effect on your life.
43	to work in advance and come to the Maths class prepared.	Myself.	I can put more effort into my work and prepare myself by at least going through the work before class.	Yes, because you never lose anything by being prepared. It showcases your competence.
44	to apply your knowledge to reality.	Myself.	I need to learn to recognize areas in reality that coincides with my	Yes, because we learn things so that we will be able to apply them.

			work and I need to find areas in my work that are applicable in real-life.	
46	to acknowledge that you are wrong.	Myself and other people.	I can try to be less prideful and more open to other people's ideas and feelings.	Yes, because I won't always be right in every situation.
50	to change your mind about an issue.	Myself and other people.	I can be a little bit more open-minded about things.	Sometimes it's important because my opinion about a certain topic may not always be right.

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none">• think ahead about the consequences of your decisions,• make decisions that should add meaning to your life.	<p>The people who are close to me, because I know that the consequences of my actions don't only affect me.</p> <p>God and the people who are closest to me.</p>	<p>Because we can't go through life only thinking about ourselves. We have to think of others too.</p> <p>We're not just here to exist, we're here to live a full life and the more meaningful things you add to your life, the 'richer' your life will be.</p>

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
9	to listen patiently to the ideas of others.	I grew up as an average learner, when I ask or say something. My family, teachers and people around me never listened to my ideas.	I am trying because I am a mother. If I can be able to accept my weaknesses. And how to deal with disappointment.	No. because no person is an island everywhere you go you meet people and you work with people.
10	to be tolerant towards the ideas of others.	I think people around me contributed in my tender age. Most of people whom had ideas they themselves don't listen to others ideas or they side line others ideas.	Now I look, listen and decide for myself. I think tolerance is a skill that need to nurtured with time	No. because for a person to grow one need to be tolerant to that particular person.
11	to show understanding for the worldviews of others.	Other peoples world view is important because we live in the		

		word of people.		
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Respondent E9

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths problem completely before making a decision, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • not allow your prejudice to influence your decisions, • be well informed before making a decision, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<ul style="list-style-type: none"> • I had four maths and science teachers in Saturday programme when I was in matric. • No one. This help me to solve other related problems. • No one. I cannot start if I don't understand. • The four maths and science teachers in matric. The way they solved problems you can see they know their basics. • I make calculated decisions • To be well informed I'm inspired by Nelson Mandela (long walk to freedom) My matric teachers inspired me the four of them now one is a lecture. Medical doctor, the principal. 	<ul style="list-style-type: none"> • Yes . because you will develop attitude of doing everything with a reason. • Same as who motivates. • No. an assignment is to see if you understand and ask for help if not. • It is important because you will get all the information you need by paying attention. • It is important to stick on your decision so that people know your stand point. • The attitude Mandela had paid at last. • Very important to do everything in your power. I learnerd that when doing something do it once because you don't know if you will have time tomorrow.

Respondent E9

<ul style="list-style-type: none"> • think ahead about the consequences of your decisions, • make decisions that should add meaning to your life, • foresee short-term outcomes for decisions. 	<ul style="list-style-type: none"> • No one • No one • Module LEER111 played important part. 	<ul style="list-style-type: none"> • Because you are accountable for decision you are making • I learned that everything I do should have a meaning and I can explain it. • For one to achieve a long term goal set short measurable goal.
<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • analyse a Maths problem in the finest detail before you tackle it, • always gather information systematically, • plan thoroughly before tackling a Maths assignment, • set goals for yourself according to which you tackle your studies. 	<ul style="list-style-type: none"> • No. one • My mate111 lecturer • No one • none 	<ul style="list-style-type: none"> • Mathematics is about logic • In module mate 111 I have learned to make notes when studying maths • Gather information so that can be within reach when I need help.
<ul style="list-style-type: none"> • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, 	<p>My Pastor</p>	<p>What you do today reflect you tomorrow.</p> <p>Learned to make decisions based on facts</p>

Respondent E9

<ul style="list-style-type: none"> ask lots of questions before solving a Maths problem, ensure that you have answered the question, after solving a problem, reflect on (think about) your day's work, analyse the result after completing an assignment, experience a feeling of competence when you could successfully solve a Maths problem. 	<p>No one</p> <p>Maths teacher</p> <p>No one</p> <p>No one</p> <p>No one</p>	<p>Question lead to clarification</p> <p>Always test your answer that what my teacher said</p> <p>Review of the day happens every day before I sleep</p> <p>I enjoy the end when I did by myself</p>
<ul style="list-style-type: none"> go out of your way to determine how to approach a difficult problem, look for opportunities in which you can solve problems, investigate new topics, ask lots of questions on a new learning section, find answers on challenging questions, write tests that require more than just 	<p>No one</p> <p>No one</p> <p>No one</p> <p>No one</p> <p>Maths teacher</p> <p>No one</p>	<p>Learned to work on a problem till the end</p> <p>Learn from others</p> <p>I do if the topic is interesting</p> <p>I learn better by asking questions</p> <p>Finding answers it is a satisfaction</p> <p>I enjoy test with open mind</p>

memorization.		
<ul style="list-style-type: none">• acknowledge that you are wrong.	No one	If you accept you are wrong you will be able to learn from that experience

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
1	to identify the reasons for your steps in problem-solving.	My mathematics teacher from high school, we knew how to solve problems but enough reasoning was not involved.	I think I should always try to analyze problems first before tempting to answer them.	No, I look at the problem once and I think I know the solution, sometimes its right though but it can even kill me.
2	to understand a Maths problem completely before making a decision.	At this stage I already possess many rules or laws of how to solve Mathematics, from my Grade 9 teacher. She said that by the time we were approaching Grade 10 especially to us who wanted to do pure Mathematics.	I believe if you solve a Mathematics problem there is something that says something to you before you begin. It should always be the case for me to look at what I have and where am I heading to.	Yes, it gives a direction.
3	to understand a Maths assignment completely before starting with it.	My attitude towards mathematics must be reason, I know any	Real life situations should always be included in assignments as a	Yes we as students like to follow directions than to start directions.

Respondent E10

		teacher will never give any assignment of anything we have never touched or came across,	matter of application.	
5	to not allow your prejudice to influence your decisions.	I am a very honest person, it needs more reasoning to application, therefore one cannot allow many influences to decide on situations but honest influences.	Knowing yourself and approving your wrong doing.	Yes, it takes out the confidence in you.
8	to do everything in your power to find the correct answer for a Maths problem.	Myself, because of my confidence	Working with others and learning from people.	Yes, it continues to give the thing that Mathematics is real.
9	to listen patiently to the ideas of others.	Learners from the school	Having the ability to care for different people's feeling.	Yes, you learn to lean on other people opinion.
10	to be tolerant towards the ideas of others.	Different people	It cannot be possible to accept everybody drama, moods and thinking	Yes, you learn to exchange ideas with people.
11	to show understanding for the worldviews of others.	My Life Orientation and Life Sciences teacher	Experiment different real life situations	No, people like to experience things differently

12	to show respect towards people whose ideas differ from yours.	Myself	It needs a lot of convincing from other people perspectives	No, it needs acceptance of individual respect.
17	to approach your Maths assignments in a logical manner.	My VUT Lecturer from VUT	A given assessment criteria always make things easier	Not exactly, one has to have the ability to analyze the assignment and apply the knowledge.
18	to approach your Maths assignments accurately.	My Physics teacher from High school	A given assessment criteria always make things easier	Yes it needs someone who can help you on the on other side.
19	to analyse a Maths problem in the finest detail before tackling it.	A teacher from Life Sciences in High School	Teachers should introduce all different methods to tackle one topic at the time.	No, it all depends how you would like to start your problem.
20	to always gather information systematically.	It needs a certain skill to have a mind that can orderly arrange information	Working with more data to detect information	Yes, it helps to arrange information in different ways
21	to plan thoroughly before tackling a Maths assignment.	Myself from high school when tackling problems.	Learners should have people who can always check their work before submitting it.	No, you need to read the assignment in order to write it you may as well start everything at the same time.
22	to distinguish between relevant and irrelevant information for solving a problem.	A teacher from Life Sciences in High School	Most information in different subjects can be grouped in a way that one thing will not be repeated	No, it depends on the individual

Respondent E10

23	to set goals for yourself according to which you tackle your studies.	My Mathematics teacher from high school	Good time management	Yes, you always achieve something at the end of the day.
24	to reflect on the answers of your Maths problems.	Myself depending on the topics.	Having people who can always check your work before submitting it.	YES, It shows your mistakes.
26	to ensure that you have sufficient information to base your decisions on.	My current Mathematics Lecturer	Having the ability to reason with everything that your write to solve your problems.	Yes, it makes you to make the right decisions.
27	to ask lots of questions before solving a Maths problem.	My School physical science teacher	It leads you to correct answers and should be based more on understanding.	No, confusion may occur.
28	to ensure that you have answered the question, after solving a problem	Current physical science Lecture	Always looking back at your answers and being able to check your mistakes with reference of the questions.	No, it all depends how answering questions mean to you not just answering.
29	to reflect on (think about) your day's work.	My group members that I usually read with.	Time management should be highly emphasized.	No, it all depends on how many things you are involved in how do you rate them.
31	to analyse the result after completing an	Life Science teacher from high school	Having a person who can assess you before handing the assignment	Yes, it gives motivation to the individuals.

Respondent E10

	assignment.			
33	to constantly look for new information so that you can learn more about a topic.	Current Physical Sciences Lecturer	It should be emphasized if there is later use of the information	No, it depends why you are learning the topic for.
34	to go out of your way to determine how to approach a difficult problem.	Life Orientation Teacher	Facing challenges and making difficult situations.	No, it does not give any useful meaning.
35	to look for opportunities in which you can solve problems.	Physical Sciences as a subject	Having a teacher who is always willing to give extra work/assessment.	Yes, it is always important to the intelligent learners and the slow one for the benefit of all learners.
36	to be interested in many topics.	Myself, having a curious mind	People should read everything they come across	Yes, you get to know more information based on different things
37	to investigate new topics.	Physical Science teacher from high school	It depends on the individual of the person.	No, it depends on your intentions.
38	to ask lots of questions on a new learning section.	Myself	Asking you questions why things are like what they are, having a more curiosity mind.	No, it sometimes makes you confused and ending up lost in the middle

39	to find answers on challenging questions.	My VUT lecturer for Mathematics	It all depends to you and how much you want to know.	No, it does not help if you crack your head for nothing
40	to study new information that have no relevance to your studies.	My first second semester compulsory modules	Curriculum Development should be regularly checked.	No, it better if they can combine all the unwanted modules into one thing and makes it small an straight forward.
41	to read a lot to broaden your understanding of topics	My Academic Literacy Lecturer	Reading a lot of different things as much as possible	Yes, it keeps the mind busy and make it easier to store information
42	to write tests that require more than just memorization.	My previous Mathematics teacher	More application than solving problems	Yes, real life application its always better to tackle.
43	to work in advance and come to the Maths class prepared.	My Physics Lecturer	It gives you a complete understanding when you get t class.	Yes, it always makes you prepare of what is expected of you in time
44	to apply your knowledge to reality.	My previous Mathematics teacher	It usually needs a lot of understanding of the contextual part so it always depends on the deliverance of the context.	Yes, it makes the school a worthwhile environment.

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • make decisions that should add meaning to your life, • foresee long-term outcomes for decisions. 	<p>As people we value life with different attitude, we got different dreams that we want to achieve and to many we got values that we cannot compromise for anything.</p> <p>It is always wise to make decisions that will benefit you in the future but most importantly they should not affect your values as a person.</p>	<p>You live the life that you are happy about and enjoy it without regrets.</p> <p>You praise whatever that you come across and rejoice in your soul.</p>
<ul style="list-style-type: none"> • acknowledge that you are wrong. 	<p>Nobody is perfect around the globe each person should try by all means that they do what is important for them and not always put them under pressure in any way, accept your mistakes and move on with live.</p>	<p>You are able to heal and accept, yourself esteem keep on heading up you know what you want and face everything along the way.</p>

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
33	to constantly look for new information so that you can learn more about a topic.	I contribute, because I'm the one who is suppose to look for the new information to learn more about the topic.	I need to have intrinsic motivation in order to seek for new information in learning the new topic.no one can make me seek for the information but I can.	Yes it is important, teacher of a lecture have less time to give you all information, so in order to understand the topic better I need to look out for the new information.
36	to be interested in many topics.	Still I'm the one. and the teacher or the lecture can help a little bit.	I have to look for material that has appropriate information to learn more topics and the lecture can suggest more material and give me explain to me why certain thing are done.	Yes it is important; to say one knows and master mathematics he/she needs to know different topics in mathematics. Therefore I need to have interest in many topics to be a better mathematician.
37	to investigate new topics.	I am, again lack of resources contributes and having less time.	Having more resource will give me motivation to investigate, and	Yes it is important, investigating new topics will help me in learning

			create time for my work	mathematics in to details.
38	to ask lots of questions on a new learning section.	I am.	I need to learn to ask questions in class.	Yes it important. To have a good understanding I need to ask questions in class and to check what I'm thinking/my opinion is right.
40	to study new information that have no relevance to your studies.	Having no time to do such. Not being interested in such	If I create time to study the new information that is irrelevant to my studies. The only thing I study besides my studies is music (choral, classical and opera) because I have interest on it.	Yes it is important because sometimes I might need some information in something that I did not study in school.
41	to read a lot to broaden your understanding of topics	Having less time to do such.	By giving myself enough time to read a lot to broaden my understanding	Yes it is important. For me to have a good subject knowledge I need to read a lot of things
43	to work in advance and come to the Maths class prepared.	Lectures and again every day we are givin lot of work to do, sometime I sleep at 3hoo and I have to wake up at 6h00 preparing my self to go to school	Lecture should give us enough work and think that we have other module to do and prepare	Yes it is important, it helps me in understanding the module better and have more questions to ask the lecture where I find problems

Respondent E14

44	to apply your knowledge to reality.	Me just being careless and ignorant	Need to have intrinsic motivation	Yes it is important, I hAve to apply my knowledge in the real life situation for me to have a purposeful studies.
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The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths problem completely before making a decision, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • not allow your prejudice to influence your decisions, • be well informed before making a decision, 	<ul style="list-style-type: none"> • To seek for understating of what I do. • Seeking for the right answer • Seeking for the directions • To understand the problem • To be sure of what I'm doing • To make sure that I'm answering the question the way I have to. 	<ul style="list-style-type: none"> • I have to identify reasons for my steps to know why I chose those steps, to build my conceptual knowledge. • To identify the directions or which steps do I need to follow in tickling the problem? • To know exactly which way to follows to do my assignment, to ask where I have problems • To have better understanding of the problem. • To make sure that I'm doing right thing. • To find information before tackling the problem. to know all the concepts and procedures to be followed

Respondent E14

<ul style="list-style-type: none"> • know exactly why a certain mathematics step was followed, answers. • Do everything in your power to find the correct answer for a Maths problem. <p>Answers</p>	<ul style="list-style-type: none"> • Seeking to have a better understanding of mathematics • I feel like a loser if I got maths problem wrong. 	<ul style="list-style-type: none"> • To have a good conceptual knowledge and procedural knowledge. • I helps in making sure I understand all thing I have to know in maths to find write answer and to ask more question to have better understanding of the problem,
<ul style="list-style-type: none"> • listen patiently to the ideas of others, • be tolerant towards the ideas of others, • show understanding for the worldviews of others, • show respect towards people whose ideas differ from yours. 	<ul style="list-style-type: none"> • To know what others think and compare what I know with what they know. • Top improve my thinking ability • To improve my views • Knowing that I'm not the master I have to listen and learn from others 	<ul style="list-style-type: none"> • It helps me in getting more ideas on how to solve problems and how to tackle problems. • To learn to work in group and build my knowledge with what they know • It helps in learning to view world in different way. • Helps in learning different ways to answer a maths problems

<ul style="list-style-type: none"> • think ahead about the consequences of your decisions, • make decisions that should add meaning to your life, • • foresee short-term outcomes for decisions, • foresee long-term outcomes for decisions. 	<ul style="list-style-type: none"> • Thinking of results • Wanting to succeed in life. • To achieve them • To know them 	<ul style="list-style-type: none"> • It helps because I always make option b, if A didn't work. • Helps in making sure that every decision I take will give good results in future • To achieve them and have a motivation to aim more and high • To achieve them at the end.
<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • approach your Maths assignments accurately, • analyse a Maths problem in the finest detail before you tackle it, • always gather information systematically, • plan thoroughly before tackling a Maths assignment, 	<ul style="list-style-type: none"> • Aiming high • To achieve a better mark and to have a good understanding. • Seeking for correct answer • To use it appropriately • To have a correct answer 	<ul style="list-style-type: none"> • To do my assignment with understanding • Helps in achieving a very good marks and understanding it better • Help in building procedural understanding and procedural • It helps in writing my problem correctly and in very impressive manner. • To know where to start when tackling the problem

<ul style="list-style-type: none"> • set goals for yourself according to which you tackle your studies. 	<ul style="list-style-type: none"> • To get better achievement and better understanding 	<ul style="list-style-type: none"> • To plan for which way to take to tackle the studies
<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, • ask lots of questions before solving a Maths problem, • ensure that you have answered the question, after solving a problem, • reflect on (think about) your day's work, • reflect on (think about) your decisions, • analyse the result after completing an assignment, 	<ul style="list-style-type: none"> • For checking whether I'm in a right track • To make sure that I succeed • Seeking for the right answer • To ensure that I'm not doing wrong things • To seek for the correct answer • To prepare myself for the work that I have to do. • To motivate myself to have the better marks on the next one 	<ul style="list-style-type: none"> • To know whether the answer is correct and have motivation to tackle the other problems • To make sure that every decision I take will give me the bright future • To make sure the decision I take will give me good results. • To make sure that every method or procedure I apply is correct.\ • Help to make me understand the problem and have a good knowledge after completing the problem. • Helps a lot to manage my day work and get it done. • To check where I did mistakes and try to improve from my mistakes to achieve more.

<ul style="list-style-type: none">• experience a feeling of competence when you could successfully solve a Maths problem.	<ul style="list-style-type: none">• To be motivation to tackle more maths problem	<ul style="list-style-type: none">• Helps in giving confidence to do more maths problems and enjoy doing mathematics
<ul style="list-style-type: none">• Acknowledge that you are wrong.	<ul style="list-style-type: none">• Seeking for the right solution	<ul style="list-style-type: none">• Helps in trying to find solution and asks more question to understand more.

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
13	to think ahead about the consequences of your decisions.	Well, I live my life as it comes and at this point I don't think about what is to come.	Well, if the decision I have to make is very important then think it through before I make the decision	Yes, because sometimes the decisions I have to make changes my life totally.
14	to make decisions that should add meaning to your life.	I think that my life right now has no meaning to it maybe as time goes my attitude will change.	Right now, I think nothing, just have to sit back and see	No, because I cannot really plan my future.
15	to foresee short-term outcomes for decisions.	Well it depends on what decision I have to make.	Well, truly speaking I don't have any short-term outcomes	No, if a decision has to be made, just make it.
16	to foresee long-term outcomes for decisions.	Well it depends on what decision I have to make and if its about my career I do make long term outcomes but not short	If I knew what is coming ahead for me	Yes, because you cannot live without these outcomes

17	to approach your Maths assignments in a logical manner.	Well, a person never actually learns much from assignments because its more of group work	If I had to do it alone than I would take it seriously	Yes, because if you approach it logically it would like practice and practice makes perfect
18	to approach your Maths assignments accurately.	Well, if you get 100% for an assignment and 40% for a test, this would show it's not my work so I'd rather be average	Well, if I had lots of time to do it then I would	Yes, because you learn a lot from the assignment and it's like practicing
21	to plan thoroughly before tackling a Maths assignment.	Well, I believe it's rather you know it or you don't, so I can't plan for it	Well, I doubt ill ever plan for it	No, like I said before its rather you know it or you don't
23	to set goals for yourself according to which you tackle your studies.	I believe your tackling of studies should be equal for every subject and I believe every subject deserves your best	Doubt anything can improve me	No, you should do your best always
24	to reflect on the answers of your Maths problems.	Well, I do sometimes but depends what it is, if its something difficult for me than I don't because I wouldn't understand the answer anyway	If I become determined to work hard for mathematics	Yes, to check if you on the right track
28	to ensure that you have answered the question,	Well, what I wrote is what I know and if its incorrect its incorrect	If I know for sure what is the problem	Yes, because that is the point of answering a question

	after solving a problem			
30	to reflect on (think about) your decisions.	Well, I live my life as it comes and at this point I don't think about what is to come.	Well, if I take every decision I make seriously	Yes, to notice your mistakes and learn from them
31	to analyse the result after completing an assignment.	Well, whats done is done, I don't analyse it	Well, nothing I guess	No, sometimes the feedback demotivates a person
32	to experience a feeling of competence when you could successfully solve a Maths problem.	Well, the reason would be that, only a few problems of math can make me feel that way	Well, if I had to feel that way more often	Yes, boosts a person's self-esteem and motivates the person to remain that way
33	to constantly look for new information so that you can learn more about a topic.	I just learn what I need to learn	If the topic was of interest to me	Yes, knowledge is power
34	to go out of your way to determine how to approach a difficult problem.	I am not a problem solver type of person	Well, if I was that serious about mathematics I would	Yes, so that you know how to deal with it when it approaches you again
35	to look for opportunities in which you can solve problems.	Like I said before I am not a problem solver type of person	Well nothing, I don't like solving problems	Yes, the more you solve is the more you practice and the more you know

36	to be interested in many topics.	Well, I like doing one thing at a time, many things confuse me	Learn how to multitask I guess	No, many things can confuse a person
37	to investigate new topics.	Don't like knowing more than I should know	nothing	Yes, knowing more is a good thing
39	to find answers on challenging questions.	Like I said before I am not really a problem solver type of person	If its something of my interests	Yes, to feel good about yourself
40	to study new information that have no relevance to your studies.	Don't like knowing more than I should know	nothing	Yes, knowing more is a good thing, knowledge is power
41	to read a lot to broaden your understanding of topics	I don't like reading, since I was young	nothing	Yes it is, because you learn more, but I just don't like reading.
42	to write tests that require more than just memorization.	Like I said before I am not really a problem solver type of person	Well, I am improving now due to practise	Yes, because that would be knowledge in the brain not just memorization
43	to work in advance and come to the Maths class prepared.	Well, don't see the point of working through something you don't know and time is something students don't have	Well, if I had time I would look at it	Yes, to have some prior knowledge before receiving the new knowledge
44	to apply your knowledge to reality.	Its unimportant because my life is not really that complicated.	If we learned things that are relevant to reality	Yes, be a problem solver

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • pay attention to detail in Maths problems, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<ul style="list-style-type: none"> • If I know the reason, I'll know how to solve the problem • Well, it's what I need to use to get to solve the problem • Knowing why will help remember how to do the steps • Because it makes me feel good about myself 	<ul style="list-style-type: none"> • To know how to solve the problem • The detail provides a way to the answer • It helps with memorization • Helps with understanding and practice
<ul style="list-style-type: none"> • listen patiently to the ideas of others, • be tolerant towards the ideas of others, • show respect towards people whose ideas differ from yours. 	<ul style="list-style-type: none"> • What they have to say motivates me 	<ul style="list-style-type: none"> • Because what they have to say could be correct and yours be incorrect
<ul style="list-style-type: none"> • acknowledge that you are wrong. 	<ul style="list-style-type: none"> • Admitting that you are wrong is a sign of knowledge gained 	<ul style="list-style-type: none"> • It's important because it's the only way you learn from your mistakes

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
13	to think ahead about the consequences of your decisions.	Well, I live my life as it comes and at this point I don't think about what is to come.	Well, if the decision I have to make is very important then think it through before I make the decision	Yes, because sometimes the decisions I have to make changes my life totally.
14	to make decisions that should add meaning to your life.	I think that my life right now has no meaning to it maybe as time goes my attitude will change.	Right now, I think nothing, just have to sit back and see	No, because I cannot really plan my future.
15	to foresee short-term outcomes for decisions.	Well it depends on what decision I have to make.	Well, truly speaking I don't have any short-term outcomes	No, if a decision has to be made, just make it.
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18	to approach your Maths assignments accurately.	Well, if you get 100% for an assignment and 40% for a test, this would show it's not my work so I'd rather be average	Well, if I had lots of time to do it then I would	Yes, because you learn a lot from the assignment and it's like practicing
21	to plan thoroughly before tackling a Maths assignment.	Well, I believe it's rather you know it or you don't, so I can't plan for it	Well, I doubt ill ever plan for it	No, like I said before its rather you know it or you don't
23	to set goals for yourself according to which you tackle your studies.	I believe your tackling of studies should be equal for every subject and I believe every subject deserves your best	Doubt anything can improve me	No, you should do your best always
24	to reflect on the answers of your Maths problems.	Well, I do sometimes but depends what it is, if its something difficult for me than I don't because I wouldn't understand the answer anyway	If I become determined to work hard for mathematics	Yes, to check if you on the right track
28	to ensure that you have answered the question,	Well, what I wrote is what I know and if its incorrect its incorrect	If I know for sure what is the problem	Yes, because that is the point of answering a question

	after solving a problem			
30	to reflect on (think about) your decisions.	Well, I live my life as it comes and at this point I don't think about what is to come.	Well, if I take every decision I make seriously	Yes, to notice your mistakes and learn from them
31	to analyse the result after completing an assignment.	Well, whats done is done, I don't analyse it	Well, nothing I guess	No, sometimes the feedback demotivates a person
32	to experience a feeling of competence when you could successfully solve a Maths problem.	Well, the reason would be that, only a few problems of math can make me feel that way	Well, if I had to feel that way more often	Yes, boosts a person's self-esteem and motivates the person to remain that way
33	to constantly look for new information so that you can learn more about a topic.	I just learn what I need to learn	If the topic was of interest to me	Yes, knowledge is power
34	to go out of your way to determine how to approach a difficult problem.	I am not a problem solver type of person	Well, if I was that serious about mathematics I would	Yes, so that you know how to deal with it when it approaches you again
35	to look for opportunities in which you can solve problems.	Like I said before I am not a problem solver type of person	Well nothing, I don't like solving problems	Yes, the more you solve is the more you practice and the more you know

36	to be interested in many topics.	Well, I like doing one thing at a time, many things confuse me	Learn how to multitask I guess	No, many things can confuse a person
37	to investigate new topics.	Don't like knowing more than I should know	nothing	Yes, knowing more is a good thing
39	to find answers on challenging questions.	Like I said before I am not really a problem solver type of person	If its something of my interests	Yes, to feel good about yourself
40	to study new information that have no relevance to your studies.	Don't like knowing more than I should know	nothing	Yes, knowing more is a good thing, knowledge is power
41	to read a lot to broaden your understanding of topics	I don't like reading, since I was young	nothing	Yes it is, because you learn more, but I just don't like reading.
42	to write tests that require more than just memorization.	Like I said before I am not really a problem solver type of person	Well, I am improving now due to practise	Yes, because that would be knowledge in the brain not just memorization
43	to work in advance and come to the Maths class prepared.	Well, don't see the point of working through something you don't know and time is something students don't have	Well, if I had time I would look at it	Yes, to have some prior knowledge before receiving the new knowledge
44	to apply your knowledge to reality.	Its unimportant because my life is not really that complicated.	If we learned things that are relevant to reality	Yes, be a problem solver

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • pay attention to detail in Maths problems, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<ul style="list-style-type: none"> • If I know the reason, ill know how to solve the problem • Well, it what I need to use to get to solve the problem • Knowing why will help remember how to do the steps • Because it makes me feel good about myself 	<ul style="list-style-type: none"> • To know how to solve the problem • The detail provides a way to the answer • It helps with memorization • Helps with understanding and practice
<ul style="list-style-type: none"> • listen patiently to the ideas of others, • be tolerant towards the ideas of others, • show respect towards people whose ideas differ from yours. 	<ul style="list-style-type: none"> • What they have to say motivates me 	<ul style="list-style-type: none"> • Because what they have to say could be correct and yours be incorrect
<ul style="list-style-type: none"> • acknowledge that you are wrong. 	<ul style="list-style-type: none"> • Admitting that you wrong is a sign of knowledge gained 	<ul style="list-style-type: none"> • Its important because it's the only way you learn from your mistakes

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by writing short explanations in the blocks provided.

The inventory showed that it is unimportant for you

	What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
33	to constantly look for new information so that you can learn more about a topic.	Sometimes the kind of work we are given or the selection of activities by the lecturer.	* It is important, it equips me as a student to be informed about present information.
34	to go out of your way to determine how to approach a difficult problem.	It contributes on this one, being lazy is one of the factors of it.	Yes, as a coming teacher I need to be working everytime to assist the learners.
35	to look for opportunities in which you can solve problems.	Questions that are put forward for me to answer are mostly over my competence.	Being a critical problem-solver is what will make me a good mathematician.
36	to be interested in many topics.	The lecturer who get work that is not real-life, not interesting at times.	Yes, presenting interesting topics is what will keep me interested in studying.
37	to investigate new topics.	Myself, I get investigations to do, it looks like a waste of time.	Yes, I always get updated with the new information to do.

39	to find answers on challenging questions.	Myself, I get to give up when I am being asked challenging work.	Memoradims must be available after a challenging task that I did.	To be able to answer the exam questions and learner questions.
42	to write tests that require more than just memorization.	The lectures, mathematics questions require a lot of memory. is more theory.	Only ask different level questions of bloom's taxonomy.	Yes, it gives out a feedback that I can do matins on my own.
44	to apply your knowledge to reality.	I do, application of my knowledge is a little low when it comes to matris.	Have a chance and sit down try to answer real-life questions applying my knowledge	Very important, your own view is important, you understand your work better.

The inventory showed that it is important for you to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> Identify the reasons for your steps in problem-solving. understand a Maths assignment completely before starting with it. pay attention to detail in Maths problems. know exactly why a certain mathematics step was followed. 	<p>The lecturer does, when we answer the questions in class.</p> <p>My peers gives a good explanation on this.</p> <p>If do, it is a choice I had to listen.</p> <p>A lecturer, when she explains why did we do what we did and why.</p> <p>I inspire myself, to learn from the others.</p> <p>I do, for them to respect me also.</p>	<p>To be able to explain to others how did you solve it.</p> <p>To be able to do it on my own.</p> <p>Gather more information before I solve a maths problem.</p> <p>Important for me to explain to my peers and learners why I did what I have done.</p>
<ul style="list-style-type: none"> be tolerant towards the ideas of others. show respect towards people whose ideas differ from yours. think ahead about the consequences of your decisions. make decisions that should add meaning to your life. foresee short-term outcomes for decisions. 	<p>I do, is what I do on my own to make a decision.</p> <p>I get inspired by my lecturer, assists me to think better.</p> <p>My lecture does so for me, helps me to know what are the outcomes.</p>	<p>Important to me because they will also be tolerant, understand what I say.</p> <p>To understand what they say & listen to them.</p> <p>Very important because making a decision can be affected by a lot of things, check consequences first.</p> <p>Also important to have an understanding of my life.</p> <p>Important to check how my decisions will affect me.</p>

<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • approach your Maths assignments accurately, • always gather information systematically, • distinguish between relevant and irrelevant information for solving a problem, • set goals for yourself according to which you tackle your studies. 	<p>My lectures, giving explanations before & go and do it.</p> <p>My peers do so, when they understand it better than me.</p> <p>The lecturer, she advise she gives me for my work.</p> <p>My lecturer, who she gives out the scope.</p> <p>My peers set goals for me & set goals for them to tackle the questions.</p> <p>Both me and lecturer, having my answer sheet.</p> <p>Myself and my family.</p> <p>The lecturer, she tells me which materials to have.</p> <p>I do so on my own, after answering a question paper.</p> <p>I do, and find it challenging.</p> <p>Yes I do, before I decide on how to tackle the question.</p>	<p>Yes because it assists me to be able to give right answers.</p> <p>Yes, because if you approach it accurately, you get the right answer.</p> <p>Yes, to study only relevant work is important. to pass.</p> <p>Too important for me to know how to tackle my questions.</p> <p>Very important for better understanding.</p> <p>Very important, to make good decisions now.</p> <p>To be able to do what is expected of me I need the best materials.</p> <p>To be able to finish the work correctly I need to reflect.</p> <p>Very important for me to check my achievements of the day. Check what kind of decisions.</p>
<ul style="list-style-type: none"> • reflect on the answers of Maths problems. • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, • ensure that you have answered the question, after solving a problem, • reflect on (think about) your day's work, • reflect on (think about) your decisions, 		

<ul style="list-style-type: none"> analyse the result after completing an assignment. 	<p>My lecturer helps me, when we work it or do the corrections.</p>	<p>Very important to find out where I was wrong.</p>
<ul style="list-style-type: none"> acknowledge that you are wrong, to change your mind about an issue 	<p>I do, a try to find better solutions. I do, if I see I am wrong</p>	<p>Is important, for me to find better or improved ideas. Is also good if you have done wrong things</p>

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **unimportant for you**

		What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
13	to think ahead about the consequences of your decisions.	An imagination of what I experienced in the past.	To hear other people's views and compare which ones are best.	Of course it is important because it helps an individual to think broad, that thinking is not just a prediction but it is the possibilities of situations based on those particular decisions.
14	to make decisions that should add meaning to your life.	The research that I do and the strategic thinking.	Doing that research repeatedly and can be improved by demonstrating it (not realistically) if it is something physical or discuss with those who are matured enough to see the best options for those decisions.	It is partly important, because even the minor changes on the repetition of the demonstration you have made can lead to confusion of taking the decisions, though repetition is a well confirmation.

15	to foresee short-term outcomes for decisions.	It is a broad thinking that has to do with my mental capacity.	Academic intelligence.	It is only important in a context of helping me to foresee long term outcomes; otherwise it is not necessarily important.
16	to foresee long-term outcomes for decisions.	My academic intelligence.	Professional's enhancement (for instance, when my lecture guide me towards the possibilities of those outcomes.	Very important, as foreseeing will determine whether those outcomes of my decisions are possible or not
33	to constantly look for new information so that you can learn more about a topic.	My curiosity.	Motivation of how that new information will help, for instance, when that information will help me to pass the module or in other ways.	It is not much important because if I'm not curious for that particular information then I will not look for it, or if it is for passing, then I have an extrinsic motivation towards it.
34	to go out of your way to determine how to approach a difficult problem.	Plan by listing all relevant requirements for approaching that problem.	To also plan the strategic way of approaching that problem.	It is the first solution for approaching before I can even start to literally approach, because even if it hard during the process, the interesting part is that I already have tools for that, so it is important.

36	to be interested in many topics.	An interest of compiling similar information using different topics.	To be exposed to a lot of information, by raising issues about that information with those around me and that give me an interest.	It is important because that attitude get rid of being stereotype.
37	to investigate new topics.	The instruction I got from instructor, for instance when the lecturer is giving me that work for marks.	A background view of a particular situation, as it gives me an interest of what is it all about.	Yes it is important because a lot of information can benefits on other things and makes it possible for me as an individual to understand all the aspects of life.
40	to study new information that have no relevance to your studies.	General knowledge.	If a lecture in my studies raise information that is not relevant to my studies but explaining it to an extent of seeing as a student that it is beneficial.	This is important because people in a certain field of study will not have to start from scratch when they explain to those in the other field, and the other way round hence we help each other.
41	to read a lot to broaden your understanding of topics	Dictionaries and encyclopedias.	To also ask the professionals about a topic in a context of that professional's field.	What is important in this case is to be knowledgeable about that topic not necessarily to understand in detail because too much information can lead to confusion.

42	to write tests that require more than just memorization.	Skill of applying different strategies on something.	Practicing more often.	Very important because it definitely helps to master different strategies.
43	to work in advance and come to the Maths class prepared.	Interest of that chapter.	When a lecturer ask questions to individual student.	Student will be motivated and be encouraged to give right answers.
44	to apply your knowledge to reality.	The link between reality experience and knowledge based on that content.	To always link my knowledge with the complications of reality.	It gives an outstanding experience.

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths problem completely before making a decision, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • be well informed before making a decision, • know exactly why a certain mathematics step was followed, • do everything in your power to find the correct answer for a Maths problem. 	<ul style="list-style-type: none"> • The method that is followed by my lecturer in maths class. • A background overview of the problem that is explained by my mathematics lecturer. • Research. • My current mathematics lecturer. • First steps of the methods. • Explanation of my lecturer. • Enthusiasts of other students. 	<ul style="list-style-type: none"> • It sets as an example for me to do the same. • It gives an interest of finding a solution for that problem. • Research gives broad information, including the one in text books. • She does not guide but do mathematics with us, for which there's a maximum attention. • Steps are the one assure me to decide as the answer is right. • She explained using math's basic rules on how we determined that step. • Because students do not become discouraged, that encourages me.
<ul style="list-style-type: none"> • listen patiently to the ideas of others, 	<ul style="list-style-type: none"> • The respect we give each other 	<ul style="list-style-type: none"> • Because we are aiming to correct

<ul style="list-style-type: none"> • be tolerant towards the ideas of others, • show understanding for the worldviews of others, • show respect towards people whose ideas differ from yours. 	<p>as students as well as our lecturer.</p> <ul style="list-style-type: none"> • Goods interaction among us as students. • Different methods of solving a problem. 	<p>to each other's mistakes.</p> <ul style="list-style-type: none"> • Because we are able to get solution fast. • Because others are able to show us an easy method of getting a solution.
<ul style="list-style-type: none"> • analyse a Maths problem in the finest detail before you tackle it, • always gather information systematically, • distinguish between relevant and irrelevant information for solving a problem, • set goals for yourself according to which you tackle your studies. 	<ul style="list-style-type: none"> • Understanding of a question. • Mathematical skill. • Origin of a problem. • Time management. 	<ul style="list-style-type: none"> • Because it gives a solution on how you should analyze it. • Because in mathematics it's not only about giving solution but also about how to solve. • Because it determines which information you should be looking for. • To avoid doing things under pressure.
<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • reflect on decisions that impact on your future, 	<ul style="list-style-type: none"> • Comparing with my fellow students. • My interests. • Research. 	<ul style="list-style-type: none"> • Because if my answer is different, then it is quite obvious that I got a wrong answer. • Because they are the ones which

<ul style="list-style-type: none"> • ensure that you have sufficient information to base your decisions on, • ask lots of questions before solving a Maths problem, • ensure that you have answered the question, after solving a problem, • reflect on (think about) your decisions, • experience a feeling of competence when you could successfully solve a Maths problem. 	<ul style="list-style-type: none"> • Doubtful. • By referring to my lecturer's answers. • Suspicious feeling. • Confidence. 	<p>determine my happiness.</p> <ul style="list-style-type: none"> • Because I can analyze the given information as it is broad. • It leads to confusion to an extend of asking whether I will get right answers. • Because as my lecture evaluate my questions, I can see where I was wrong in my steps. • Because it shows that I was not sure of taking that decision. • Because I anticipate a feeling of happiness before I can even solve it.
<ul style="list-style-type: none"> • acknowledge that you are wrong, • to change your mind about an issue. 	<ul style="list-style-type: none"> • Complete understanding of a problem. • Unsure of my answers or the way I answered. 	<ul style="list-style-type: none"> • It gets rid of misunderstanding of a question. • I always look to others whenever I am unsure.

Respondent E18

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by **writing short explanations** in the blocks provided.

The inventory showed that it is **important for you** to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> • Identify the reasons for your steps in problem-solving, • understand a Maths problem completely before making a decision, • understand a Maths assignment completely before starting with it, • pay attention to detail in Maths problems, • be well informed before making a decision, • do everything in your power to find the correct answer for a Maths problem. 	<p>I guess in this case my educators commitment and passion of mathematics drive/motivate me because I don't wanna let them down as they all said for one be successful on mathematics is for one to practice ask if one doesn't understand</p>	<p>In solving geometry it would be important to know your possible reasons before attempting to solve a problem. And the only way for one to be able to do these is to master each and evry theorem for example if you are required to prove that a quadrilateral is a cyclic-quad: Already one knows for a shape to be a cyclic-quad: opposite angles must be supplementary Exterior angle of a quad must be the opposite interior angle Angels subtended by a same segment at a circumference are equal</p>
<ul style="list-style-type: none"> • be tolerant towards the ideas of others, • Show understanding for the worldviews of 	<p>Like one once said talk less and lesson more because what one says might have a key to</p>	<p>Because one might learn or even teach someone</p>

Respondent E19

others.	your problems. in these case I would say both my church and educators	
<ul style="list-style-type: none"> • make decisions that should add meaning to your life, • foresee short-term outcomes for decisions, • foresee long-term outcomes for decisions. 	My church, educators and my family taught me to be patient and overlook every possibilities before taking a decision	Because if one choose study hard and refrain from partying around the is a great chance of success in life
<ul style="list-style-type: none"> • approach your Maths assignments in a logical manner, • approach your Maths assignments accurately, • always gather information systematically, • plan thoroughly before tackling a Maths assignment, • distinguish between relevant and irrelevant information for solving a problem, • set goals for yourself according to which you tackle your studies. 	In this case both of my first year and second year lectures because in high school we are just given question as an assignment in at varsity level one need to have a plan before tackling any assignment and one my also research	Because questions in a question are in the order of blooms taxonomy and you can't apply ellipse when solving parabola

<ul style="list-style-type: none"> • reflect on the answers of Maths problems, • reflect on decisions that impact on your future, • ensure that you have sufficient information to base your decisions on, • ask lots of questions before solving a Maths problem, • ensure that you have answered the question, after solving a problem, • reflect on (think about) your day's work, • reflect on (think about) your decisions, • analyse the result after completing an assignment, • experience a feeling of competence when you could successfully solve a Maths problem. 	<p>Every stake holders of my life namely my church and mathematics educators motivated me to be sure of my decision like in geometry every answer has a reason and an impact on the following question or situation, one can also reflect on the previous answer to solve the next problem or answer question</p>	<p>This will enable you to get simpler ways tat can be used in solving a problem and it gives you confidence and positive attitude when approaching a problem</p>
<ul style="list-style-type: none"> • constantly look for new information so that you can learn more about a topic, • go out of your way to determine how to 	<p>All of my mathematics educators and others because you can repeat the same thing every day and say you are practicing different questions or problems under the same topic</p>	<p>This will enable you to solve most of the problems because most of the ideas are not original</p>

Respondent E19

<p>approach a difficult problem,</p> <ul style="list-style-type: none"> • look for opportunities in which you can solve problems, • ask lots of questions on a new learning section, • find answers on challenging questions, • write tests that require more than just memorization, • apply your knowledge to reality. 	<p>will help you master the content</p>	
<ul style="list-style-type: none"> • acknowledge that you are wrong. 	<p>Attitude is also essential in the holy scriptures it said don't look at a stick in your brother's eye and forget a stem in yours. It is important for one to accept he/she is wrong rather than judging others- in this case my church motivates me</p>	<p>Because no one is perfect and this will let you be willing to learn</p>

Please answer the following questions based on the inventory that you completed about critical thinking dispositions that you possess.

Please answer each of the following questions by writing short explanations in the blocks provided.

The inventory showed that it is **unimportant** for you

	What or who contributes to the fact that you do not possess this attitude/disposition?	What do you think can be done to improve this attitude/disposition in you?	Do you think that possessing this attitude/disposition is important? Explain your answer
9	to listen patiently to the ideas of others. * NO ONE CONTRIBUTES & NOTHING	* I WANT TO SEE THE GOOD IN LISTENING PATIENTLY TO THE IDEAS OF OTHERS.	* YES → EVER BEFORE KNOWLEDGE BECAME IMPROVED BY LISTENING OR SHARING OTHER IDEAS & OPINIONS
10	to be tolerant towards the ideas of others. * NO ONE, UNLESS THERE ARE DISTRACTIONS MADE/ CAUSED BY MY FELLOWS OR PEOPLE AROUND	* I WOULD TRY TO CONTROL MY EMOTIONS TOWARDS THE DISTRACTIONS, IN ORDER NOT TO END UP IGNORANT	* BEING TOLERANT TO IDEAS OF OTHERS IS VERY IMPORTANT BECAUSE BY THAT YOU CAN LEARN A LOT.
11	to show understanding for the worldviews of others. * PEERS OR THE PERSON HIMSELF WHO MAKES LOGICAL POINTS THAT MAKE NO SENSE	* TRY TO BE TRAINED FOR ABILITY TO LISTEN AND SEE THINGS IN DIFFERENT PERSPECTIVES.	* YES IT IS → IMPROVES YOUR VIEW (TOWARDS) THE WORLD EVEN THE ONES YOU WERE NOT AWARE OF.
13	to think ahead about the consequences of your decisions. * I CONTRIBUTE SOMETHING BY BEING LAZY TO THINK OUT OF THE BOX	* MAYBE IF I START TO THINK OUT OF THE BOX MOST OF THE TIMES THAT WILL HELP	* YES IT IS IMPORTANT → IT HELPS YOU OUT OF TROUBLE OR PREVENTS ONE FROM DOING BAD DECISIONS.
14	to make decisions that should add meaning to your life. * NO ONE CONTRIBUTES AND AS WELL NOT MAKE CONTRIBUTES.	* ALWAYS BE MOTIVATED AND MADE TO THINK POSITIVELY	* YES BECAUSE AT THE END I AM THE ONE WHO WILL BE SMILING.
15	to foresee short-term outcomes for decisions. * BUT BEING IGNORANT MIGHT BE THE CAUSE MAYBE	* TAKE EVERYTHING SERIOUS OR SHOW POSITIVITY IN THEM.	* YES → THAT WILL HELP ONE TO THINK CRITICALLY AND BROADLY.

26	to ensure that you have sufficient information to base your decisions on.	* LAZINESS CONTRIBUTES TO THAT AND I AM THE ONLY PERSON TO CONTRIBUTE TO THAT	* TURN MY MIND TO A HUNCHY MIND, SO EXTRA MILE FOR WHY IS BENEFICIAL TO ME	* YES. THIS HELPS ONE TO MAKE COMMENTS THAT ARE RELEVANT AND POINTS THAT RELEVANT ALL THE TIME
27	to ask lots of questions before solving a Maths problem.	* I CONTRIBUTE TO THAT IF I CAN SAY & ONE OTHER THING IS BEING SAID OR DEMOTIVATED.	* BE MADE TO FEEL BETTER ABOUT EGOS FOR ONES AND BE WHEN I HAVE TO BE IN A MATHS CLASS.	* YES → THEY MAKE ONE TO UNDERSTAND EVEN MORE ON MATHS PROBLEMS OR SOLUTIONS.
28	to ensure that you have answered the question, after solving a problem	* NOT THINKING STRAIGHT OR NOT UNDERSTANDING THE QUESTION ITSELF BECAUSE OF LAZINESS.	* IMPROVE OR ACCOMMODATE THE LANGUAGE THAT I UNDERSTAND, OR HAVE TO UNDERSTAND	* YES → YOU CANT PASS IF YOU BEAT DID NOT ANSWER WHAT HAVE BEEN ASKED.
29	to reflect on (think about) your day's work.	* LAZINESS CONTRIBUTES TO THAT.	* IMPROVE THE MY INTEREST TO MY WORK, MAKE IT A POINT THAT I THINK ABOUT THE BENEFIT OF MY WORK	* YES → IT HELPS THE PERSON TO BE AWARE OF THE MISTAKES MADE IF ANY.
31	to analyse the result after completing an assignment.	* I CONTRIBUTE TO THAT	* HAVE MY WORK, LOVE WHAT I HAVE TO DO FOR THE BENEFIT OF MY FUTURE.	* YES BUT EVEN THOUGH YOU CANT SOLVE THE PROBLEM YOU MUST ALWAYS SHOW COMPETENCE AND STRIVE TO KNOW THE SOLUTION.
32	to experience a feeling of competence when you could successfully solve a Maths problem.	* AND ONE CONTRIBUTE TO THIS ONE OR NOTHING CONTRIBUTES.	* BE MADE AWARE THAT EXPRESSING YOUR FEELINGS WILL BE HELPFULL SOMETIME.	

The inventory showed that it is important for you to:

	What or who motivates or inspires you to have this attitude/disposition?	Why do you think it is important to have this attitude/disposition?
<ul style="list-style-type: none"> Identify the reasons for your steps in problem-solving. understand a Maths problem completely before making a decision, understand a Maths assignment completely before starting with it. pay attention to detail in Maths problems. be well informed before making a decision. know exactly why a certain mathematics step was followed, do everything in your power to find the correct answer for a Maths problem. 	<ul style="list-style-type: none"> THE LECTURE OR THE TEACHER CONTRIBUTED THE LECTURE AND ME AS WELL IDEAS OF FELLOW STUDENTS. THE LECTURE, FELLOW STUDENTS OR CLASS MATE, ME INSTRUCTIONS, THE OUTCOMES THAT THE LECTURE EXPECTS. LECTURE/EDUCATOR LECTURE / FELLOW CLASSMATE THE LECTURE, THE LIFE IS LIKE SOMETHING CONTRARY TO THIS ONE. 	<ul style="list-style-type: none"> BECAUSE ONE WILL UNDERSTAND WHAT HE/ SHE IS ABOUT TO DO. BECAUSE IT WILL HELP COME UP WITH CORRECT ANSWERS HELP MEET THE CRITERIA AND THE OUTCOMES AS WELL HELP UNDERSTAND THE PROBLEM BETTER HELP ME TO APPLY APPROPRIATE INFORMATION. SO THAT YOU WILL USE THEM CORRECTLY WHEN NEEDED. HELP ME TO SEE THE STRENGTH THAT I HAVE IN ORDER TO TACKLE PROBLEMS
<ul style="list-style-type: none"> approach your Maths assignments in a logical manner, approach your Maths assignments accurately, 	<ul style="list-style-type: none"> MY LIFE, THE OUTCOMES THAT ARE EXPECTED INSTRUCTIONS, THE OUTCOMES 	<ul style="list-style-type: none"> HELPS ME TO DO THE CORRECT THING HELPS ME TO GET GOOD RESULTS.

<ul style="list-style-type: none"> analyse a Maths problem in the finest detail before you tackle it. distinguish between relevant and irrelevant information for solving a problem. set goals for yourself according to which you tackle your studies. 	<p>WITH THE LECTURE, PEERS, ME.</p> <ul style="list-style-type: none"> LECTURE ME, AND OTHER HELPFUL PEOPLE, CAUSE THERE ARE NO PARENTS TO DO THAT FOR ME. 	<ul style="list-style-type: none"> BE BECAUSE I WILL BE ABLE TO DO THE CORRECT THING BE ABLE TO SOLVE RELEVANT INFORMATION REGARDING THE OUTCOMES IMPORTANT TO HELP ME PURSUE MY STUDIES
<ul style="list-style-type: none"> look for opportunities in which you can solve problems. investigate new topics. find answers on challenging questions. read a lot to broaden your understanding of topics. write tests that require more than just memorization. work in advance and to come to the Maths class prepared. apply your knowledge to reality. acknowledge that you are wrong. 	<ul style="list-style-type: none"> LECTURE, ESPECIALLY IN A DREAMERY CLASS, PEERS LECTURE, ME LECTURE, ME LECTURE, ME LECTURE, OUTCOMES OF THE MATRICE LECTURE, AND ME, SOMETHING PEERS CONTRIBUTED. I MOTIVATE MYSELF, THE LECTURES ALSO MOTIVATES ME PEERS, LECTURE, OTHER STATIONS IN LIFE 	<ul style="list-style-type: none"> HELPS ME TO DO THE RIGHT THING. HELPS ME TO KNOW MORE HELPS ME TO IMPROVE MY STRENGTH ON MATH SOLUTIONS IMPROVE MY KNOWLEDGE HELPS ME TO STUDY HARDER AND ACQUIRE CORRECT INFO FOR A LONG TIME MOTIVATES YOU IN CLASS HELPS IN MAKING ME SEE THE USES OF MY MIND IN LIFE. CORRECT MY MISTAKES FOR NEXT TIME